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ABSTRACT

A study of economically disadvantaged children in free play nursery contexts provided further evidence for the cross-cultural applicability of Schaefer's three-dimensional scheme in assessing classroom competencies. Several implications of the configurational approach are a new way of thinking about competence measurement, its differentiated manifestations in varied settings, and its development. The idea of multiple gradients of change provides a sharpened conceptualization and methodology for dealing systematically with the development of personal-social competencies through time. The application of this framework to a variety of life contexts may result in the discovery of interesting interactions between personal dispositions and situations which help clarify the individuality of patterns of competence. (Author/BJG)

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Structure and Change in the Behavior of Economically Disadvantaged Preschool Children*

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Educational Testing Service

My current thinking about classroom competence in young children is very compatible with much that we have heard in this Symposium, especially the configurational approach of Earl Schaefer. In our own study of the classroom behaviors of economically disadvantaged urban preschool children, we have identified essentially the same dimensions of individual differences discussed by Earl and Martin Kohn. In the time available to me, I will discuss some implications of our findings for the questions of cross-cultural generalization, developmental changes in the personal-social behaviors underlying classroom competence, and situational variations in expressions of social competence.

We studied the preschool behaviors of over 500 four-year-olds, the majority of whom were black and enrolled in Head Start. Personal-social measures were based upon an observation-rating procedure applied to the "free play" periods of preschool programs. There were two observations on each child, first in the Fall and then in the Spring of the preschool year, yielding short-term longitudinal information on personal-social development. Data were collected at several sites throughout the continental United States. Locally trained pairs of raters simultaneously observed each target child continuously for

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25-30 minutes, after which they independently rated the child on a comprehensive set of personal-social attributes. Rater reliabilities were satisfactory, although not typically as high as could be achieved under controlled laboratory conditions. The study's measures were based upon consensus ratings arrived at by the paired raters after they made their independent judgments.

Separate structural analyses were conducted within the Fall and Spring periods. These were based upon Louis Guttman's configurational approach, which interprets correlational matrices as ordered distance relationships among variables. Rather than isolating multiple factors presumed to define many so-called first order factors, we extracted as few dimensions as possible, treated these as axes for defining a spatial configuration of behaviors, and derived behavioral constructs to sample this space.

There were three basic dimensions, defining a hemispheric space. The first two dimensions were the familiar ones of Extraversion vs. Introversion, and Love vs. Hostility. When these two bipolar dimensions were cross-classified, they defined the well-known circumplex ordering of personal-social constructs, especially that applied by Becker and Krug to children's behaviors. Going clockwise, and starting at the extraversion pole, these constructs were circularly ordered as follows: Sociable, Affectionate or Loving, Cooperative, Compliant, Submissive, Withdrawn, Distrusting, Hostile, Assertive, and back to Sociable, completing the circle. I should add that each of these circumplex-ordered constructs was associated with an ordered patterning of discrete behaviors, providing concrete behavioral referents. For example, number of smiles was most associated with Loving, and number

of physically aggressive acts directed toward peers was most associated with Hostility.

The third dimension was Task Orientation, including such constructs as Autonomous Achievement and a variety of classroom activities such as fine manipulative behaviors, artistic activities, and engagement in tasks obviously requiring relatively complex cognitive processing.

These findings add evidence for universality in the underlying meanings of personal-social behaviors related to classroom competence. I think it is important, however, to be very precise about the scope and limits of such a claim for universality. First and foremost, we are talking about the underlying dimensionality of classroom behaviors, not about the level of competence typically reached by a particular cultural group. Moreover, the generalization is not known to apply beyond a specific context, namely relatively unstructured periods within nursery school programs. Whether the present structure is invariant across institutional settings within a variety of subcultures remains largely unknown. This question is important, since preschool programs generally incorporate middle class values which may not be dominant in the family life of economically disadvantaged children. Was our sampling of behavior fully representative of subcultural behaviors within the free play context itself? We are reasonably confident that it was. We measured many aspects of classroom free play behavior, our observer-raters were themselves members of the local communities, and they were encouraged to apply their own behavioral definitions to certain scales. Consequently, the meanings attributed to children's behaviors were not simply impositions of molar behavioral concepts specific to the middle class. Finally, analytic

procedures did not force the data into a predetermined mold. If a different structure had been present, we would have detected it.

I should at least mention here that the validity of our structural findings on children's classroom personal-social behaviors was supported by patterns of meaningful correlations with measures of the children's intellectual functioning, independently measured, as well as with features of the mother-child relationship.

Turning now to the question of the consistency of individual differences over time, I would first note how differently this issue is treated by different research traditions. In the tradition of personality measurement, for example, the presence of such stability is considered important evidence for a construct's validity. From the perspective of personality development, however, it remains a theoretical issue whether individual differences on a given construct will be stable over time. For example, individual differences in behaviors located on sequential developmental scales, such as stages in ego and moral development, cannot produce meaningful stability coefficients. This is because the theoretical assumptions of invariant sequence and individual differences in rate of attainment would be clearly violated by high individual stability of this type. The essential point is that the question of individual stability over time bears more directly on our theories of development than on the validation of our measurement instruments.

The configurational approach sheds considerable light on this problem. As emphasized by Guttman, Foa, and Schaefer, a configuration describes ordered relationships among personal-social constructs--some constructs

are closer in the space, sharing common meanings; some are more distant, sharing little meaning, and some are very distant, with opposite meanings. For purposes of assessment, this configuration can be used to locate individuals at a given point in time, describing the individual's current state. Repeated assessments over time can thus reveal developmental or perhaps other changes in state. Furthermore, the proximity principle suggested by Uriel Foa implies that such changes in state will have predictable direction. The central idea is that behavioral constructs closer to one another within the space define likely gradients of behavioral change. In terms of the circumplex, for example, a child who is initially at a particular point along the circular ordering of behaviors would be expected to change first toward those behaviors adjacent to his or her initial state. Of course, this is not to say that change will occur, but only that changes that do occur will be orderable along gradients defined by the configuration. Since the configuration is three-dimensional, it defines many potential gradients of change, posing interesting questions about which gradients are most salient for the development of social competence.

This notion of qualitative behavioral change has a number of important implications, one of which brings us back to the question of stability coefficients. Since, in the present view, an individual might well change between constructs within the configuration, we should not necessarily expect individual stability on the same constructs measured over time. Indeed, as individuals change from one construct to another, traditional stability coefficient should decrease. But how can we take account of the real changes that are occurring? A straightforward answer is to correlate

initial state constructs with those constructs to which it is linked along gradients of the configuration. These correlations, which I think can properly be called transformation coefficients, are indexes of systematic changes that link an earlier state of the individual to a later one. If the traditional stability correlations are low, while transformation coefficients are high, then we have evidence for systematic change in the individual's competence. While low stability coefficients traditionally are believed to signify individual malleability, their occurrence in conjunction with transformation leads to the very different conclusion that the individual's attributes change qualitatively in a predictable, ordered fashion. It thus becomes apparent why a multivariate configurational approach is necessary to arrive at a correct inference about the nature of individual consistency and change in the course of development.

A third issue concerns the question of cross-situational generality. Is the dimensionality of classroom competence essentially different than that for children's behaviors in other contexts, such as the home or peer group? Does the present scheme adequately describe children's behaviors within each differentiated context within the classroom? While definitive answers to these questions are not yet at hand, let us assume for the moment that we could respond affirmatively, that the dimensionality of many differentiated contexts does turn out to be quite universal. We would then want to ask whether or not individuals were consistent from one context to another. I think we need to know a lot more about the extent of cross-situational generalization in the social competencies of individual children. We do know, of course, that certain situational variations will fundamentally

alter the behaviors of most individuals. We also know that there is typically a small-to-moderate amount of cross-situational consistency in the individual's behavior. But there is increasing interest in how the individual's more general dispositions interact with features of the situation. I am especially intrigued, therefore, by the possibility that personal dispositions interact with context to produce unique patterns of individual variation across situations. This possibility, that an individual's personal tendencies are uniquely and differentially expressed in salient life contexts, provides a much richer image of individuality in the development of social competency than the notions of either highly generalized character traits, on the one hand, or of facile conformity to changing situational demands, on the other.

Currently we are gathering pilot information on this question. By observing children in several contexts of a nursery school program, we plan to map each individual's location within the three-dimensional configuration, separately by context. In this way, we hope to be able to describe the nature (and eventually the origins) of situational differentiations and generalizations of social competence.

In brief summary, our study of economically disadvantaged children in free play nursery contexts provided further evidence for the cross-cultural applicability of Schaefer's three-dimensional scheme in assessing classroom competencies. I also briefly noted several implications of the configurational approach, which, I trust, at least illustrate a way of thinking about competence measurement, its differentiated manifestations in varied settings, and its development. The idea of multiple gradients of change provides a sharpened conceptualization and methodology for dealing systematically with our ever-present interest in the development of personal-social competencies

through time. And by applying this framework to a variety of important life contexts, it may become possible to uncover interesting interactions between personal dispositions and situations which help clarify the individuality of patterns of competence.